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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference ACH 2970 WO		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/12166	International filing date (day/month/year) 30.10.2003	Priority date (day/month/year) 05.11.2002	
International Patent Classification (IPC) or both national classification and IPC C10G200			
Applicant ALBEMARLE NETHERLANDS B.V.			



- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 06.05.2004	Date of completion of this report 09.02.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Falls, F Telephone No. +49 89 2399-8350 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/2166**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-9 as originally filed

Claims, Numbers

1-10 received on 06.07.2004 with letter of 05.07.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages: .
☒ the claims, Nos.: 1-10
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

see separate sheet

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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/2166**

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/12166

1). Prior Art

US-A-4906671(D1) discloses the conversion of CO and H₂ in a fluidized bed using a combination of a FT catalyst and a zeolite.

US-A-3254023(D2) discloses a reaction zone with both FT catalyst particles and a Y zeolite (see Ex. 6, col. 10).

US-A-5928980(D3) discloses a process involving both a FCC cracking process and a a FT synthesis.

2). Novelty (Art. 33(2) PCT) --

D1 does not disclose that the zeolite used in combination with the FT catalyst is a Y zeolite.

The disclosure of D2 as it relates to the subject-matter of claim 1 (see cited passage above) differs from it only in that the Y zeolite is not taught as a FCC catalyst. Although the reactants are referred to as fluid charges the catalysts are referred to as "solids" (see Cl. 1). Although the particles may be separate in Ex. 6, the wording of claim 1 of the application does not require that the FT catalyst particles and the zeolite Y particles be mixed. Also, although the general teaching of D1 refers to cracking catalysts which exclude zeolite Y and to which the applicant draws attention in his letter of reply (see Cl's 14 & 19), these are preferred teachings. The relevant teaching of D2 is Ex. 6.

D3 does not disclose a Y zeolite.

Therefore, the subject-matter of the claims is novel.

3). Inventive Step (Art. 33(3) PCT)

The subject-matter of claim 1 lacks an inventive step in view of the teaching of Ex. 6 of D2. The skilled person would consider applying the teaching of this example to a situation in which the zeolite Y particles are fluidized.

D1 and D3 are not relevant for consideration of inventive step.

It is not apparent that any of the features of dependent claims 2-10 would introduce an inventive step.

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